

Roland Bartl

From: David Maxson [david@broadcastsignallab.com]
Sent: Monday, February 26, 2007 4:04 PM
To: Roland Bartl
Cc: Greg_Niemyski@tjx.com
Subject: Re: FW: signal strength

Comments inserted below: ***

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-----Original Message-----

From: "Roland Bartl" <rbartl@acton-ma.gov>
To: "David Maxson" <david@broadcastsignallab.com>
Cc: Greg_Niemyski@tjx.com
Date: Mon, Feb-26-2007 3:00 PM
Subject: FW: signal strength
Dave:

Could you please opine on Greg's inquiry regarding signal strength? Greg thought that some of the plots did not indicate the assumed signal strength, but it appears they all do. Now the question is: Is (dBm) ≥ -85 the appropriate signal strength for use in the coverage plots? The Chairman is looking to put something in the rules regarding this to make sure we will be comparing apples to apples.

***I recommend against putting specific signal levels in bylaws. First-generation bylaws used -95 dBm, regardless of technology or coverage objective. When carriers began looking for -85 dBm, or thereabouts, to serve reliable "in-vehicle" service, the -95 dBm bylaw criteria were very difficult to rationalize. Each carrier's target levels are a little different. The Telecommunications Act speaks only to the provision of service and applies no engineering measures. Court cases usually rely on the specifics of the case to infer what is an appropriate measure of a lack of service. We can expect the target levels to change again when the use of wireless telephony and data in the home becomes a major force in facility siting. Levels as high as -75 dBm have been presented to communities for this type of coverage. This inexorable progression toward lower antenna heights and more closely-spaced facilities suggests that the tall tower approach has nearly reached its limit. Communities must be prepared to permit smaller, less obvious facilities in areas that are not reached fully from current towers.

Thanks -

Roland Bartl, AICP
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-----Original Message-----

From: Greg_Niemyski@tjx.com [mailto:Greg_Niemyski@tjx.com]
Sent: Monday, February 26, 2007 9:19 AM
To: Roland Bartl

2/27/2007

Subject: Re: signal strength

Good Morning !

Bruce says that this is the signal strength. We should ask Dave Maxon if this is the minimum standard we should require the plots be calculated upon.

Our last hearing raised some interesting points on this tower application. For your consideration:

1. Our Objective as reiterated by Maxon's report, is to minimize the number of towers by maximizing usage on each existing tower;

***I counsel my communities to recognize that all "towers" are not equal. A 90-foot concealed antenna monopole is certainly different from a 150-foot full-array tower. The characteristics of a site also play heavily into the relative impact of a particular tower-- in some places a tall tower may be less objectionable than a short tower elsewhere... and vice versa. Thus, simply aiming to minimize the tower count may result in unnecessary excessive impacts.

2. The statement was made by Verizon that the Crown tower is "over stressed" and cannot support a backhaul antenna;

Should we require an engineering study of Crown to confirm this assertion? For if it is true, we may have a bigger issue in that the existing tower either needs to be replaced OR we need to make the Cappizzi tower 175 feet to accommodate the relocations;

However, if everyone relocates to Cappizzi, there will be a gap in the Westford-Carlisle section

***I do not see any such gap in Acton. It would be the responsibility of Westford and Carlisle to address their respective coverage issues.

perhaps requiring yet another tower at some point; It seems that Dave Maxon's report suggests that we "push" for the alternative backhauling solution rather than just take their word that they can't do it.

***Leaving no stone unturned, I suggested the short hop could be a solution to the backhaul problem. Solving the backhaul problem to preserve the current site does not resolve the apparent PCS gap near Cappizzi. However, the gap they show at PCS it is small enough that it would likely be a while before Verizon came to put in a lower height facility just to fill in the PCS coverage. A PCS-only carrier, like TMobile, might be more inclined to put 3 facilities in (PO Sq., Cappizzi, McKay) first, because they lack the wider-area cellular band coverage. So, if there is no compelling reason to try to force the McKay site to be as useful as possible, there is no need to push the backhaul issue. The backhaul issue is important to pursue in this hearing only if improving backhaul capacity affects whether Cappizzin should or should not be approved.

Even though two members of the Board have expressed a desire to close this down and vote, I think we should nail down these items above.

I am not opposed to this tower and I don't want the appearance of that in raising these issues.

In the draft decision , I didn't see the requirement that the applicant will secure a utility easement covering ALL tenants of the facilities. This is the source of our current dilemma.

Your thoughts???

Greg

"Roland Barti" <rbarth@acton-ma.gov>

02/23/2007 11:14 AM

To <Greg_Niemyski@tjx.com>

cc

2/27/2007

Subject: signal strength

All Verizon plots we have are with a notation Clr: RSSI (dBm) ≥ -85 within the green plots. Is this the indicator for signal strength?

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2/27/2007